

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A transaction system for performing secure transactions over a communication network comprising:

a merchant server system including a computer processor and associated memory, said merchant server system offering items for sale;

a buyer system including a computer processor and associated memory, said buyer system being selectively coupled to said merchant server system over said communication network to initiate a transaction, wherein, during said transaction, said buyer system selects one or more of said items for purchase;

a security server system distinct [[form]] from said merchant server system and including a computer processor and associated memory and an encryption device, said security server system receiving buyer information from said buyer system, encrypting said buyer information in an encryption key that prevents said merchant server system from decrypting said buyer information, and transferring said encrypted buyer information to said merchant server system,; and

a payment processor server system distinct form the security server system and including a computer processor and associated memory, said payment processor server system being selectively coupled to said merchant server system, wherein said merchant server system transmits at least a payment portion of said encrypted buyer information to said payment processor server system for processing during said transaction

wherein said merchant server system cannot decrypt said encrypted payment information and said payment processor server system can decrypt said encrypted payment information; and

wherein said payment processor server decrypts said encrypted payment information and using said decrypted payment information, determines if said transaction is authorized or not, and communicates said determination to said merchant server system.

2. (Canceled)

3. (Previously Presented) The transaction system of claim 5 wherein said encrypted buyer information received by said delivery server system is delivery address information of said buyer.

4. (Canceled)

5. (Previously Presented) The transaction system of claim 1 further comprising a delivery server system including a computer processor and associated memory, said delivery server system being selectively coupled to one of said merchant server system and said payment processor server system, wherein said one of said merchant server system and said payment processor server system transmits at least a delivery information portion of said encrypted buyer information to said delivery server system for processing during said transaction;

wherein said delivery server system decrypts said encrypted delivery information to determine a delivery address for delivery of said one or more selected items.

6. (Previously Presented) The transaction system of claim 5 wherein said security server system encrypts said buyer information into a first document and a second document, wherein said first document is transmitted to said payment processor server system by said merchant server system and said second document is transmitted to said delivery server system by said merchant server system.

7. (Previously Presented) The transaction system of claim 5 wherein said security server system encrypts said buyer information into a first document and a second document, wherein said first and second documents are transmitted to said payment processor server system by said merchant server system and said second document is transmitted to said delivery server system by said payment processor server system.

8. (Previously Presented) The transaction system of claim 6 wherein said first document contains one of the buyer system's delivery address information and the buyer system's payment information and the second document contains the other of said buyer system's delivery address information and said buyer system's payment information.

9. (Previously Presented) The transaction system of claim 8 wherein said security server system encrypts said first document using a first encryption key and said second document using a second encryption key, wherein said one of said payment processor server system and said delivery server system that receives said first document can decrypt said first document but not said second document and wherein said other one of said payment processor server system and said delivery server system that receives said second document can decrypt said second document but not said first document.

10. (Previously Presented) The transaction system of claim 7 wherein said first document contains one of the buyer system's delivery address information and the buyer system's payment information and the second document contains the other of said buyer system's delivery address information and said buyer system's payment information.

11. (Previously Presented) The transaction system of claim 10 wherein said security server system encrypts said first document using a first encryption key and said second document using a second encryption key, wherein said one of said payment processor server system and said delivery server system that receives said first document and second documents from said merchant server system can decrypt said first document but not said second document and wherein said other one of said payment processor server system and said delivery server system that receives said second document can decrypt said second document but not said first document.

12. (Currently amended) A system for performing secure transactions over a communication network comprising:

a merchant server system including a computer processor and associated memory, said merchant server system offering items for sale;

a buyer system including a computer processor and associated memory, said buyer system being selectively coupled to said merchant server system over said communication network to initiate a transaction, wherein, during said transaction, said buyer system selects one or more of said items for purchase;

a security server system distinct ~~[[form]]~~ from said merchant server system and including a computer processor and associated memory, said security server system being selectively coupled to said buyer system to receive buyer information from said buyer system in the course of said transaction, said buyer information including delivery address information and payment information;

a delivery server system including a computer processor and associated memory; and

a payment processor server system distinct from the security server system and including a computer processor and associated memory;

wherein said security server encrypts and transmits said delivery address information to said delivery server system and said payment information to said payment processor server system by way of said merchant server system, said delivery address information and said payment information of said buyer information being not otherwise provided to said merchant server system;

wherein said delivery server system decrypts said encrypted delivery address information to determine a delivery address for delivery of said one or more selected items.

13. (Original) The transaction system of claim 12 wherein said security server system encrypts said delivery address information into a first document and encrypts said payment information into a second document.

14. (Previously Presented) The transaction system of claim 13 wherein said security server system transmits said first and second documents to said merchant server system, which transmits said first document to said delivery server system and said second document to said payment processor server system; and

wherein said merchant server system cannot decrypt said first and second documents.

15-25. (Canceled)

26. (Previously Presented) A system for performing secure transactions over a communication network comprising:

a merchant server system including a computer processor and associated memory, said merchant server system offering items for sale;

a buyer system including a computer processor and associated memory, said buyer system being selectively couplable to said merchant server system over said communication network to initiate a transaction, wherein, during said transaction, said buyer system selects one or more of said items for purchase;

a delivery server system including a computer processor and associated memory;

a payment processor server system including a computer processor and associated memory; and

a security server system distinct from said merchant server system and said payment processor server system and including a computer processor and associated memory and an encryption device, said security server system receiving buyer information from said buyer system and forming a merchant document associated with said merchant server system and including information regarding the item being purchased, encrypting said buyer information into a payment document associated with said payment server system and including the buyer's payment information and encrypting said buyer information into an address document associated with said delivery server system and including the buyer's shipping address;

said security server system transferring said buyer information to a first one of said merchant server system, said payment server system and said delivery server system, wherein said first system removes the document associated with the first system and transmits the remaining documents to a second one of said merchant server system, said payment server system and said delivery server system, wherein said second system removes the document associated with the second system and transmits the remaining document to a third one of said merchant server system, said payment server system and said delivery server system;

wherein said security server system encrypts said buyer information using an encryption key in which only said payment server system can decrypt said payment document and only said delivery server system can decrypt said address document; and

wherein said payment server system decrypts said encrypted payment information and using said decrypted payment information, to determine if said transaction is authorized or not, and communicates said determination to said merchant server system

wherein said delivery server system decrypts said encrypted delivery information to determine a delivery address for delivery of said one or more selected items.

27. (Previously Presented) A method for performing secure transactions over a communication network comprising:

A. establishing a connection between a buyer system and a merchant server system over said communications network to initiate a purchase transaction;

B. said buyer system selecting an item offered for sale by said merchant server system;

C. said buyer system transmitting buyer information to a security server system distinct from said buyer system;

D. said security server system encrypting said buyer information using an encryption key that prevents said merchant server system from decrypting said encrypted buyer information;

E. said security server system transmitting said encrypted buyer information to said merchant server system;

F. said merchant server system transmitting at least a payment information portion of said encrypted buyer information to a payment processor server system for processing during said purchase transaction, said payment processor system being distinct from said security server system; and

G. said payment processor server system decrypting said at least a portion of said encrypted buyer information before processing said information and then using said decrypted payment information determines if said transaction is authorized or not, and communicates said determination to said merchant server system.

28. (Withdrawn) A method for identifying a party comprising:

A. obtaining a plurality of identifying indicia from each of a plurality of parties;

B. performing a one-way hash function on each of said plurality of identifying indicia to form a plurality of hashed identifiers, wherein a particular output of said one-way hash function is unique to a particular input of said hash function;

C. forming an array of hashed identifiers for each of said plurality of parties, wherein each array includes a number of hashed identifiers that are unique to each party;

D. receiving an identifying indicium from a party;

E. performing said hash function on said indicium to form a hashed indicium;

F. parsing each of said arrays to determine if said hashed indicium coincides with a hashed identifier therein;

G. determining which, if any, of said arrays contains a match between said hashed indicium and a hashed identifier;

wherein, upon one match occurring, the method identifies a unique party from said plurality of parties based said match between said hashed indicium and said hashed identifier;

wherein, upon two or more matches occurring, the method repeats steps D-G until one of said arrays contains a set of matches that none of the other arrays contain; and

H. identifying a unique party from said plurality of parties based on said set of matches.

29. (Withdrawn) A method for identifying a party comprising:

in a security server system including a computer processor and associated memory, said security server system being selectively couplable to a second server system, including a computer processor and associated memory, over a communications network, performing the steps of:

- A. obtaining a plurality of identifying indicia from each of a plurality of parties;
- B. performing a one-way hash function on each of said plurality of identifying indicia to form a plurality of hashed identifiers, wherein a particular output of said one-way hash function is unique to a particular input of said hash function;
- C. forming an array of hashed identifiers for each of said plurality of parties, wherein each array includes a number of hashed identifiers that are unique to each party; and
in said second server system, performing the steps of:
 - D. receiving an identifying indicium from a party;
 - E. performing said hash function on said indicium to form a hashed indicium;
 - F. parsing each of said arrays to determine if said hashed indicium matches with a hashed identifier therein;
 - G. determining which, if any, of said arrays contains a match between said hashed indicium and a hashed identifier;
wherein, upon one match occurring, the method identifies a unique party from said plurality of parties based said match between said hashed indicium and said hashed identifier;
wherein, upon two or more matches occurring, the method-repeats steps D-G until one of said arrays contains a set of matches that none of the other arrays contain; and
 - J. identifying a unique party from said plurality of parties based on said set of matches.